Specifications — FOX 500 DVI Series

NOTE *The FOX 500 DVI consists of a transmitter (FOX 500 DVI Tx) and a receiver (FOX 500 DVI Rx) with one or two fiber optic cables linking the two units. They are available in singlemode or multimode versions.*

NOTE *The analog audio signal(s) is (are) digitized in the transmitter, sent through the fiber cable, and converted back to analog audio in the receiver.*

NOTE *These transceivers are class 1 laser products. They meet the safety regulations of IEC-60825, FDA 21, CFR 1040.10, and FDA 21 CFR 1040.11.*

Optical fiber interconnection between transmitter and receiver

Number/type ..... 1 or 2 fiber optic

NOTE *Only one fiber is required to transmit video, audio, and unidirectional data. A second fiber is required to transmit return data for bidirectional control/communication.*

Connectors ..... 2 LC connectors

Operating distance

- Singlemode..... 30 km (18.75 miles) with singlemode (SM) cables with a FOX 500 DVI SM
- Multimode..... 300 m (985') with 62.5 µm multimode (MM) cables with a FOX 500 DVI MM
  1 km (3280') with 50 µm multimode (MM) cables with a FOX 500 DVI MM
  2 km (6561') with 50 µm 2000 MHz bandwidth laser optimized multimode cable with a FOX 500 DVI MM

NOTE *Operating distance is approximate. These are typical maximum distances that may vary depending on factors such as fiber type, fiber bandwidth, connector splicing, losses, modal or chromatic dispersion, environmental factors, and kinks.*

Nominal peak wavelength..... 850 nm for FOX 500 DVI MM, 1310 nm for FOX 500 DVI SM

Data rate ..... 4.25 Gbps

Transmission power

- Singlemode..... -5 dBm, typical
- Multimode..... -5 dBm, typical

Maximum receiver sensitivity

- Singlemode..... -18 dBm, typical
- Multimode..... -12 dBm, typical

Optical loss budget

- Singlemode..... 13 dB, maximum
- Multimode..... 7 dB, maximum

Video

Resolution range ..... Single link DVI and HDMI digital video signals are supported, including 640x480 @ 60 Hz through 1600x1200 @ 60 Hz, and also HDTV signals at 480p, 720p, 1080i, and 1080p.
Higher resolutions up to 1920x1200 @ 60 Hz, undersampled

NOTE **Appropriate DVI-D to HDMI cables or adapters are required for HDMI signal input/output.*

NOTE *The FOX 500 DVI Series can be used to distribute HDMI signals if you use a DVI-to-HDMI adapter. However, when using HDMI signals, the FOX units do not transmit audio and CEC signals.*

Formats..... RGB and YCbCr digital video

Standards..... DVI 1.0, HDMI 1.2

Video input and loop-through — transmitter (FOX 500 DVI Tx)

Number/signal type..... 1 DVI-D (or HDMI*) input
1 DVI-D (or HDMI*) loop-through

Connectors ..... 1 female DVI-I for input
1 female DVI-I for loop-through

Nominal level ..... 0.8 Vp-p

Impedance..... 100 ohms

Video output — receiver (FOX 500 DVI Rx)

Number/signal type	1 DVI-D (or HDMI*)
Connectors	1 female DVI-I
Nominal level	0.8 Vp-p
Impedance	75 ohms
Video delay	1-2 frames

Audio

Gain

Range	Adjustable, -18 dB to +10 dB
Default	
Captive screw connector	Unbalanced output: -6 dB; balanced output: 0 dB
Mini stereo jack	Unbalanced output: 0 dB

Frequency response	20 Hz to 20 kHz, ±0.5 dB
THD + Noise	0.10% @ 1 kHz at nominal level
S/N	>80 dB at maximum output (unweighted)
CMRR	65 dB @ 20 Hz to 20 kHz
Audio bits per sample	18 bits per channel, 2 channels (L, R)
Sampling rate	48 kHz

Audio input — transmitter (FOX 500 DVI Tx)

Number/signal type	2 inputs (mixed): 1 balanced stereo; 1 unbalanced stereo or 2 unbalanced mono
Connectors	(1) 3.5 mm captive screw connector, 5 pole (1) 3.5 mm mini stereo jack
Impedance	18k ohms unbalanced, 20k ohms balanced, DC coupled
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level	+17 dBV, (unbalanced) at 1% THD+N

NOTE *0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu*

Audio output — receiver (FOX 500 DVI Rx)

Number/signal type	2 buffered outputs: 1 balanced stereo; 1 unbalanced stereo or 2 unbalanced mono
Connectors	(1) 3.5 mm captive screw connector, 5 pole (1) 3.5 mm mini stereo jack
Impedance	50 ohms unbalanced, 100 ohms balanced
Nominal level	+4 dBu (1.23 Vrms), -10 dBV (316 mVrms)
Maximum level (Hi-Z)	>+19 dBu, unbalanced at 1% THD+N
Maximum level (600 ohm)	>+15 dBm, unbalanced at 1% THD+N
Audio delay	1.5 frames

Control/remote

Serial control ports on each unit (transmitter and receiver)

Control	1 RS-232, 3.5 mm captive screw connector, 5 pole (3 pins are used) (rear panel) 1 RS-232, 2.5 mm mini stereo jack (front panel)
Pass-through	1 RS-232, 3.5 mm captive screw connector, 5 pole (3 pins are used) (rear panel); in parallel with 1 RS-232, 2.5 mm mini stereo jack (front panel)

Baud rate and protocol

Control	9600 baud, 8 data bits, 1 stop bit, no parity
Pass-through	9600 to 115,200 baud

Serial control pin configurations.	Captive screw connectors: 1 = Tx, 2 = Rx, 3 = GND Mini stereo jack: tip = Tx, ring = Rx, sleeve = GND
Program control.....	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

General

Power	100 VAC to 240 VAC, 50-60 Hz, 11 watts, internal
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Convection, vented left to right, vents on side panels
Mounting	
Rack mount	Yes, with optional rack shelf kit
Furniture mounting holes	Yes, with optional under desk mounting kit
Enclosure type	Metal
Enclosure dimensions.....	1.7" H x 8.7" W x 9.5" D (1U high, half rack wide) (4.3 cm H x 22.1 cm W x 24.1 cm D) (Depth excludes connectors and knobs.)
Product weight	2.3 lbs (1.0 kg) per unit
Shipping weight	4 lbs (2 kg) per unit
Vibration.....	ISTA 1A in carton (International Safe Transit Association)
Regulatory compliance	
Safety.....	CE, CUL, FDA Class 1, UL
EMI/EMC	CE, C-tick, FCC Class A, ICES, VCCI
MTBF.....	30,000 hours
Warranty.....	3 years parts and labor

NOTE *All nominal levels are at ±10%.*

NOTE *Specifications are subject to change without notice.*

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